CLAIMS

1. Device for white light interferometry comprising a light source of main emission wavelength λ_0 and spectral width $\Delta\lambda$ and an evaluating unit with a line sensor of pixel width P for detecting an interference fringe pattern with a fringe spacing F, a mask being placed in front of the line sensor having a periodically modulated light transmittance along said line sensor, characterized in that the period length M of the mask is such as to fulfil the condition

$$\frac{\Delta\lambda}{\lambda_0} < \left|1 - \frac{F}{M}\right| < \frac{1}{2}\frac{F}{P} - \frac{\Delta\lambda}{\lambda_0}$$

2. Device according to claim 1, characterized in that the period length M is an integral fraction of the pixel width P.

3. Device according to one of the preceding claims, characterized in that the mask is formed by covering the line sensor pixel with a plurality of opaque points, particularly metallic dots.

4. Device according to claim 3, characterized in that the opaque points are statistically distributed perpendicular to the line sensor axis and the covering density along the axis is in accordance with a periodic function, particularly a sine, rectangular or sawtooth function.

5. Device according to claim 3, characterized in that the opaque points are applied in a regular arrangement which is periodically repeated along the line sensor.

6. Device according to one of the claims 1 or 2, characterized in that the line sensor comprises at least two pixel lines and the mask is constructed as an alternate arrangement of transparent and light-deflecting elements, the deflected light being detected by the second pixel line.

7. Device according to claim 6, characterized in that light deflection takes place by refraction.

8. Device according to claim 6, characterized in that light deflection takes place by diffraction on gratings.